

Date: Tue, 28 Sep 93 04:30:08 PDT  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #1148  
To: Info-Hams

Info-Hams Digest                      Tue, 28 Sep 93                      Volume 93 : Issue 1148

Today's Topics:

    2.4 GHz pre-amp w/ Mitsubishi series GaAs FET  
    Alkaline rechargeable batteries (AGAIN!)  
    Audio output/Freq low/Hamcomm PROBLEMS (2 msgs)  
    Daily Solar Geophysical Data Broadcast for 27 September  
    Elliptical RF filters calculation program WANTED.  
    High-end paddles (and the Morse Impaired)  
    New license question (2 msgs)  
    Regenerating PL tones thru a repeater.  
    RFI from my Mac to my HT

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 28 Sep 93 05:39:58 GMT  
From: ogicse!psgrain!ee.und.ac.za!shrike.und.ac.za!casper.cs.uct.ac.za!  
com13.ee.uct.ac.za!crawford@network.ucsd.edu  
Subject: 2.4 GHz pre-amp w/ Mitsubishi series GaAs FET  
To: info-hams@ucsd.edu

Could someone please direct me to an article for a 2.4 GHz pre-amp based on the  
Mitsubishi MGF series GaAs FETs? If not available, I'll design one but I'd  
rather not "re-design the wheel" if I can help it.

Comments appreciated.

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Brian Crawford      KL7JDQ/ZS1 Phone: +27 21 650 3467/Fax: 3465      /-----\\_  
University of Cape Town      Email: crawford@eleceng.uct.ac.za      <\_\_      >

Dept. Electrical Engineering  
Rondebosch 7700, South Africa

crawford@comgate.ee.uct.ac.za \ /  
`\*-`

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Date: 28 Sep 93 05:01:18 GMT  
From: munnari.oz.au!metro!mippet.ci.com.au!eram!dave@network.ucsd.edu  
Subject: Alkaline rechargeable batteries (AGAIN!)  
To: info-hams@ucsd.edu

In article <1993Sep22.204027.18955@combdyn.com>,  
lawrence@combdyn.com (Lawrence \*The Dreamer\* Chen) writes:

| That's just great. Us Canadians are being screwed by Wayne Green....by making  
| us wait for our September issue, meanwhile the October issue is already out  
| down there.

So did you pay for an air-mail subscription, like some of us in Oz did?

--  
Dave Horsfall (VK2KFU) VK2KFU @ VK2RWI.NSW.AUS.OC PGP 2.3  
dave@esi.COM.AU ...munnari!esi.COM.AU!dave available

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Date: Tue, 28 Sep 1993 00:14:13 GMT  
From: cs.yale.edu!ccsua.ctstateu.edu!white@yale.arpa  
Subject: Audio output/Freq low/Hamcomm PROBLEMS  
To: info-hams@ucsd.edu

Friends

I have a Kenwood R1000 communications receiver that I am trying to use with the HamComm CW/RTTY and JVFAX programs. I built the simple 741-based interface for the PC's serial port. Problem is that the programs require a signal of 500Hz-2500Hz, and my system is apparently delivering 100Hz. Is there any way that I could boost the frequency?? I obviously am not well-schooled in electronics :(

The signal at 100Hz on the 'scope onboard HamComm follows the morse code that I can hear on the R1000's speaker precisely; I just need to nudge it up to 500 Hz. Also, tuning noise, etc will show up across the spectrum. I have been advised to try to use the RS 1K ohm center tap - to - 8 ohm audio output transformer, but am unsure about how to hook it up (3 leads on the 1K center tap side, 2 on the 8 ohm side) and I also don't want to damage the R1000.....

Any help appreciated. A number of HamComm "attempted" users have admitted to having the same problem.

PS - I am considering purchasing the AEA FAX II, but am worried that I will have the same problem with that device... Opinions?

Harry  
white@csusys.ctstateu.edu

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Date: Tue, 28 Sep 1993 01:24:48 GMT  
From: nih-csl!helix.nih.gov!arm@uunet.uu.net  
Subject: Audio output/Freq low/Hamcomm PROBLEMS  
To: info-hams@ucsd.edu

In article <1993Sep27.191413.1@ccsua.ctstateu.edu> white@ccsua.ctstateu.edu  
writes:

>  
>Friends  
>I have a Kenwood R1000 communications receiver that I am trying to use  
>with the HamComm CW/RTTY and JVFAX programs. I built the simple 741-based  
>interface for the PC's serial port. Problem is that the programs require a  
>signal of 500Hz-2500Hz, and my system is apparently delivering 100Hz.  
>Is there any way that I could boost the frequency?? I obviously am not  
>well-schooled in electronics :(  
>The signal at 100Hz on the 'scope onboard HamComm follows the morse code  
>that I can hear on the R1000's speaker precisely; I just need to nudge it  
>up to 500 Hz. Also, tuning noise, etc will show up across the spectrum.  
>I have been advised to try to use the RS 1K ohm center tap - to - 8 ohm  
>audio output transformer, but am unsure about how to hook it up (3 leads on  
>the 1K center tap side, 2 on the 8 ohm side) and I also don't want to  
>damage the R1000.....

I'm not sure why you were advised to do this, but it will not help the  
frequency problem.

>Any help appreciated. A number of HamComm "attempted" users have admitted  
>to having the same problem.

I am also unsure of the whole story. I assume the 741 circuit is a  
sharp filter and comparator to convert the on-off tones into on-off  
switching. The best solution is to redesign the 741 circuit for the  
lower frequency. If I am barking up the wrong tree, and you really  
need to shift the frequency, one solution would be a frequency multiplier.  
You could overdrive an op amp to produce a square wave. Then wire a  
filter at 500 Hz, the 5th harmonic of the 100 Hz signal. I bet it would  
work well enough. But hopefully one of the hams on rec.amateur...  
will understand the problem well-enough to provide a better solution.

-- Andy Mitz  
WA3LTJ

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Andrew Mitz, Biomedical Eng., Nationl Institutes | Opinions are mine alone  
of Health Animal Center, Poolesville, MD | arm@helix.nih.gov

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Date: 28 Sep 93 05:04:42 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Daily Solar Geophysical Data Broadcast for 27 September  
To: info-hams@ucsd.edu

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 270, 09/27/93  
10.7 FLUX=104.4 90-AVG=093 SSN=073 BKI=2333 2321 BAI=010  
BGND-XRAY=B4.2 FLU1=4.8E+05 FLU10=1.5E+04 PKI=3323 2221 PAI=008  
BOU-DEV=013,037,021,021,013,027,017,006 DEV-AVG=019 NT SWF=02:024  
XRAY-MAX= M1.8 @ 1212UT XRAY-MIN= B3.4 @ 1927UT XRAY-AVG= C1.4  
NEUTN-MAX= +000% @ 2320UT NEUTN-MIN= -004% @ 1610UT NEUTN-AVG= -1.6%  
PCA-MAX= +0.0DB @ 2355UT PCA-MIN= -0.2DB @ 1940UT PCA-AVG= -0.0DB  
BOUTF-MAX=55367NT @ 0355UT BOUTF-MIN=55339NT @ 1832UT BOUTF-AVG=55358NT  
GOES7-MAX=P:+000NT@ 0000UT GOES7-MIN=N:+000NT@ 0000UT G7-AVG=+074,+000,+000  
GOES6-MAX=P:+119NT@ 1802UT GOES6-MIN=N:-060NT@ 1403UT G6-AVG=+094,+002,-039  
FLUXFCST=STD:105,110,115;SESC:105,110,115 BAI/PAI-FCST=015,015,025/015,018,025  
KFCST=2135 5111 2135 5111 27DAY-AP=004,004 27DAY-KP=2111 2112 2001 2212  
WARNINGS=\*MAJFLR;\*SWF  
ALERTS=\*\*MINFLR:M1.8/BSL@1212UTC(245BURST=60000SFU!);\*\*MINFLR:M1.8/SN@2249;  
\*\*TENFLR:400SFU@1207UTC,DUR=5MIN  
!!END-DATA!!

NOTE: The Effective Sunspot Number for 26 SEP 93 was 34.0.  
The Full Kp Indices for 26 SEP 93 are: 2o 3+ 3+ 3- 2+ 1+ 2- 2+

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Date: 28 Sep 1993 10:11:56 +0100  
From: swrinde!cs.utexas.edu!uwm.edu!rpi!ghost.dsi.unimi.it!ghost.dsi.unimi.it!not-  
for-mail@network.ucsd.edu  
Subject: Elliptical RF filters calculation program WANTED.  
To: info-hams@ucsd.edu

Hi. I'm searching for a program who calculates elliptical RF filters  
and possibly describes how to build it.  
It's very important for me, so if you know where I can find it, please  
mail to me as soon as possible.

MNY TNX and 73's. Paolo(mapelp@ghost.dsi.unimi.it)

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Date: Mon, 27 Sep 1993 21:48:27 GMT  
From: news.bu.edu!att!cbnewsm!jeffj@decwrl.dec.com  
Subject: High-end paddles (and the Morse Impaired)  
To: info-hams@ucsd.edu

In article <fmitchCDvzz6.HDK@netcom.com> fmitch@netcom.com (Felton Mitchell) writes:

>Paul Flaherty (paulf@Csl.Stanford.EDU) wrote:

>: fmitch@netcom.com (Felton Mitchell) writes:

>

>: >the problem with paddles is they are used to generate morris code, which

>: cThe ^that xMorse

>: >is a terrible waste of valuable spectrum... maybe a morris channel

>: p. cMaybe xMorse

>: >can be instituted on the internet to get morris off of hf... the

>: cInternet xMorse CHF p. cThe

>: >more modern modes certainly can use the room... and the reason most

>: p. xxx cThe

>: >morris ops like to didah is they can't type and certainly can't spell...

>: xMorse ^that xcertainly p.

>

>

>: That may be true, but at least we don't require an Editor.

>

>

>

>well, so much for trying to emulate the "text style" heard on the lo end

>of 40m ... and how do u CCapitalize CCharacters in MMorris? send the

>character twice for emphasis? ...--

Well you could try to spell Morse right as Morris is a cat.

Jeff

--

Jeff Jones AB6MB		OPPOSE THE NORTH AMERICAN FREE TRADE AGREEMENT!
jeffj@seeker.mystic.com		Canada/USA Free Trade cost Canada 400,000 jobs.
Infolinc BBS 510-778-5929		Want to guess how many we'll lose to Mexico?

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Date: Tue, 28 Sep 1993 00:08:24 GMT  
From: swrinde!cs.utexas.edu!math.ohio-state.edu!hobbes.physics.uiowa.edu!  
news.uiowa.edu!icaen.uiowa.edu!drenze@network.ucsd.edu  
Subject: New license question  
To: info-hams@ucsd.edu

A quick question about something that's confusing me. I just got my ticket in the mail today. Under operator priileges, it sas "technician." On my

CSCE, it said I passed my exam and earned "Technician w/HF." My questions:  
(1) Does the FCC differentiate on the Technician-class licenses between  
Tech No-code and Tech/HF? (2) If not, or if so and my license is in error,  
do I have to identify with the "/KE" when I use my HF privs? (3) If so and  
there is an error on my license, whom do I contact?

Tnx es 73,  
Doug, N0YVW

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__  /|  | Douglas J Renze, N0YVW  |      Charter Member, Popular Front
\ 'o.O' | +1 319 337 4664         |      for Revolutionary Darwinism:
=(___)= | drenze@isca.uiowa.edu   |
      U  | Douglas-Renze@uiowa.edu |      Evolution Now!
```

-----  
Date: 28 Sep 1993 01:37:06 GMT  
From: drt@athena.mit.edu  
Subject: New license question  
To: info-hams@ucsd.edu

In article <1993Sep28.000824.5862@news.uiowa.edu> drenze@icaen.uiowa.edu (Douglas J Renze) writes:

A quick question about something that's confusing me. I just got my ticket in the mail today. Under operator priileges, it sas "technician." On my CSCE, it said I passed my exam and earned "Technician w/HF." My questions:  
(1) Does the FCC differentiate on the Technician-class licenses between Tech No-code and Tech/HF? (2) If not, or if so and my license is in error, do I have to identify with the "/KE" when I use my HF privs? (3) If so and there is an error on my license, whom do I contact?

1. No.
2. No. (Anyway, it's "KT." IF you upgraded from novice - and then you wouldn't have to sign with an identifier on HF in any event.)
3. Not necessary
4. Remember - don't lose your proof of having passed the code test (until you get your general!)
5. Welcome!

-drt  
--

-----  
David R. Tucker                    KG2S                    drt@mit.edu

|'Most political sermons teach the congregation nothing except       |  
|what newspapers are taken at the Rectory.' -C.S. Lewis               |

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Date: 28 Sep 93 00:16:18 GMT  
From: agate!spool.mu.edu!sdd.hp.com!caen!hellgate.utah.edu!fcom.cc.utah.edu!  
ced.utah.edu!news@ucbvax.berkeley.edu  
Subject: Regenerating PL tones thru a repeater.  
To: info-hams@ucsd.edu

Hi

Looking for some net.wisdom on how to regenerate one of several PL tones through repeaters. I am building several VHF repeaters, each of which needs to decode one of several PL tones, let's say 100.0, 110.9 and 123.0Hz, and then if any of these three is detected (but not any other PL tone), it keys the transmitter, and enables the matching PL encoder so that the respective PL tone is passed out of the transmitter.

Obviously this could be done with three or more PL decoders, and three or more PL encoders at each repeater site. I am looking for a solution where there is one general-purpose PL tone decoder, which is capable of determining of what tone is being sent "on the fly" (like a period-measuring freq counter), which produces an output which says which PL tone is being detected. (Kind of like a PL "scanner").

I plan to interface this scanning PL decoder to a micro-computer, and key the transmitter only if the PL code matches one stored in a table. The regeneration could be taken care of by having the uP load a byte into the frequency determining register on a single gen-purpose PL encoder (ie, replace the dip switches with a latch).

So, anybody have any ideas on how do do this short of buying three or more decoders and three or more encoders per site? Alternatively, how about a source of lots of cheap PL decoders, or a cheaply-reproduceable chip-based PL decoder based on an IC chip.

Mike Mladejovsky, WA7ARK

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Date: 27 Sep 1993 18:02:29 -0700  
From: techbook.com!techbook.com!not-for-mail@uunet.uu.net  
Subject: RFI from my Mac to my HT  
To: info-hams@ucsd.edu

Douglas J Renze (drenze@icaen.uiowa.edu) wrote:  
: I bought a Radio Shack HTX-202 today, and when I got it home, I noticed a

Get rid of that darn Mickeyentosh!! 8-)

BTW, I also fed it differently because the capacitor in the article, (from Rip Shack), is obsolete. Just run a rod up from the coax connector, parallel to the short antenna element and make a clamp which you can slide up and down to find the best match. A 14 inch rod will provide plenty of adjustment range. If desired, once you find the correct length, you can make a one piece rod of the correct length, with appropriate bends at the top, and solder it all in place for a permanent electrical connection. That is why I used copper materials.

Those who beat their swords into plowshares  
are destined to plow for those who don't.  
genew@techbook.COM

Please direct flames to: [genew@ucant.getthere.frmhere](mailto:genew@ucant.getthere.frmhere)



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Date: 28 Sep 93 00:48:30 GMT  
From: ogicse!emory!kd4nc!ke4zv!gary@network.ucsd.edu  
To: info-hams@ucsd.edu

References <CDt76z.KqM@wang.com>, <1993Sep26.124205.3674@ke4zv.atl.ga.us>,  
<CE0prG.Huy@ryn.mro4.dec.com>  
Reply-To : gary@ke4zv.UUCP (Gary Coffman)  
Subject : Re: Antenna Covenants AGAIN (but now with a twist!)

In article <CE0prG.Huy@ryn.mro4.dec.com> randolph@est.enet.dec.com (Tom Randolph)  
writes:

>  
>In article <1993Sep26.124205.3674@ke4zv.atl.ga.us>, gary@ke4zv.atl.ga.us (Gary  
Coffman) writes...  
>>There's  
>>a good bit of talk in the broadcast business about shutting down  
>>the transmitters in 5 years or so because so few viewers are now  
>>getting their signals via over the air transmissions. Broadcasters  
>>may soon be just another cable programing service.  
>  
>Wow! Hundreds of MHz free for the taking! Can't wait!  
>  
>Seriously, I hope the ARRL and others are ready to propose new amateur bands if  
>the broadcasters cease use of all that spectrum. Of course, in my opinion it's  
>all totally wasted on TV at the present time, anyway.  
>-Tom R. N100Q randolph@est.enet.dec.com

The FCC has already proposed uses for the VHF TV spectrum after 2004  
when commercial broadcast will shut down it's VHF operations and go  
strictly to UHF HDTV. What some in the industry are hinting is that  
it may not be cost effective to go to HDTV UHF transmission when the  
time comes. Instead they may just rent transponder time and become  
strictly cable channels.

Gary

--  
Gary Coffman KE4ZV | "If 10% is good enough | gatech!wa4mei!ke4zv!gary  
Destructive Testing Systems | for Jesus, it's good | uunet!rsiatl!ke4zv!gary  
534 Shannon Way | enough for Uncle Sam." | emory!kd4nc!ke4zv!gary  
Lawrenceville, GA 30244 | -Ray Stevens |

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Date: 27 Sep 93 23:31:58 GMT  
From: agate!howland.reston.ans.net!darwin.sura.net!udel!news!clarknet.clark.net!

clarknet.clark.net!postmaster@ucbvax.berkeley.edu  
To: info-hams@ucsd.edu

References <CDo86M.F31@news.Hawaii.Edu>,  
<JMILLER.93Sep23172432@rufus.afit.af.mil>,  
<JMILLER.93Sep27072216@hack.afit.af.mil>k.net  
Subject : Re: Cable TV and Broadcasters (was: local news)

jmiller@hack.afit.af.mil (Jeff Miller, Homer Simpson's alter ego) writes:

>I tried to stir up the pot over on .policy with this, but nothing boiled :-).  
Looks  
>like a similar discussion is starting over here, so what the heck... ;-)  
>  
>--  
>Jeff Miller, NH6ZW/N8, AFA1HE (ex WD6CQV, AFA8JM, AFA1D0)  
>AFIT School of Engineering, Wright-Patterson AFB, OH  
>Welcome to Ohio: Our state flower is the orange highway construction barrel.  
>Help eliminate FOD in our lifetime.

Hey, I think the broadcast stations should take a leap myself. We need  
more open channels on cable for quality programming (I bet they give us  
more shopping channels, though &^( )

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John A. Evans, Capt, USAF "My number one goal as a  
VHDL/EDA Engineer runner is to live long enough  
to place in my age group!!!"

HAM Callsign under construction x3xxx  
(No-code Technician Test completed 5 Sep 93 - code to follow)

jaevans@clark.net Linux - the OS of choice !!

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Once data encryption is outlawed, only outlaws will have data encryption !!!  
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End of Info-Hams Digest V93 #1148

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